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### THE SOCIETY FOR THE PROMOTION OF HELLENIC STUDIES

## REPORT

ON

# PROSPECTS OF RESEARCH IN ALEXANDRIA

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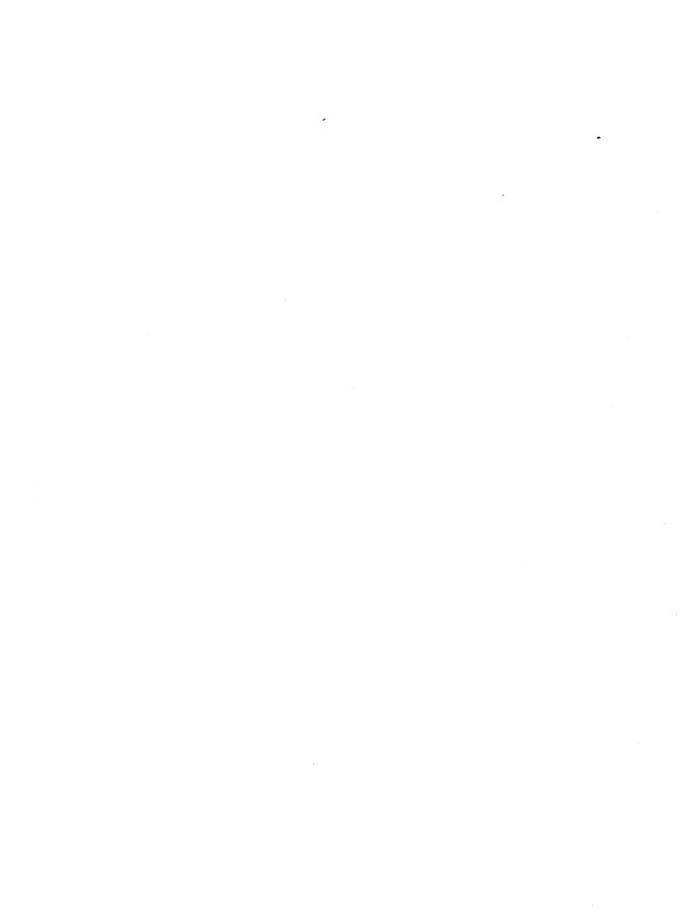
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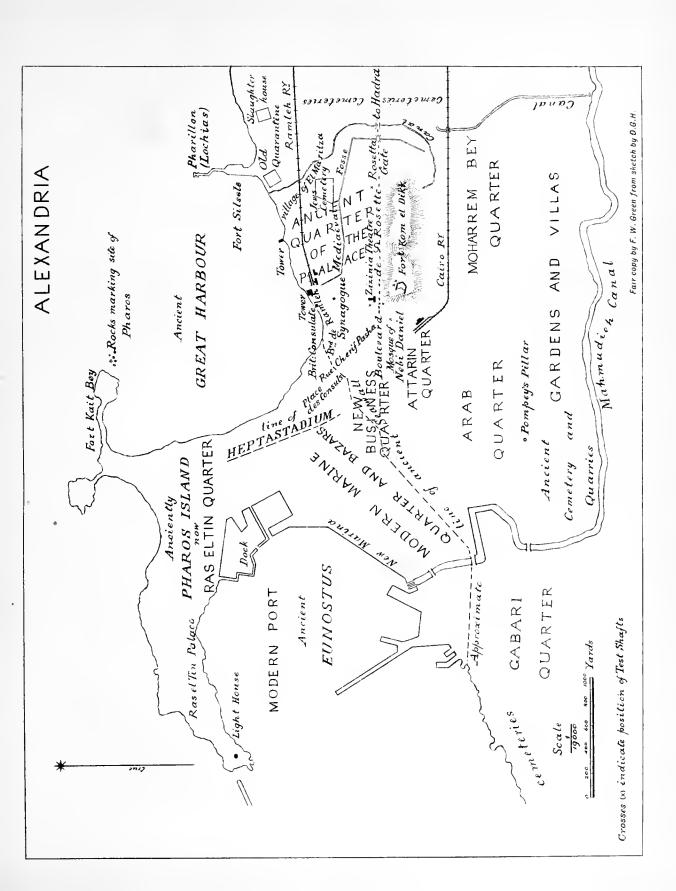
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### PREFATORY NOTE.

As the Hellenic Society made a substantial contribution towards the excavations described in the accompanying Report, which was drawn up for the Archæological Report of the Egypt Exploration Fund, the Council gladly availed themselves of the opportunity offered by the Managers of that Fund to obtain copies of the Report for distribution to members of the Hellenic Society.







# REPORT ON PROSPECTS OF RESEARCH IN ALEXANDRIA.

(See Map.)

THERE is no ancient site on the Mediterranean, the prospect of whose exploration seems to stimulate more recurrent curiosity than Alexandria; there is hardly one that has been less systematically explored. The perusal of Neroutzos' "L'ancienne Alexandrie" is sufficient to inform the reader how little research had been prosecuted up to 1885. No one except Mahmud Bey, court astronomer of the Khedive Ismail, commissioned to make a map for the history of Julius Cæsar, by Napoleon III., had worked with any wider purpose than to find buried treasure. Schliemann had nibbled at the fringe of the site in May and June, 1887, and quickly abandoned his borings, discouraged by early ill-success and the disfavour shown to him by the natives. Since 1885, successive Directors of the Service of Antiquities have made tentative explorations, mainly about the Attarin quarter, but no one has persevered long, or, so far as I know, published any detailed account of what he did or found.

It was left, therefore, to Sig. G. Botti, on his appointment in 1891 as Director of the Græco-Roman Museum, newly-established in the town, to undertake anything like a systematic search for the remains of the great city which occupied the site, and more than the site, of modern Alexandria. Having the advantage of permanent residence, he was able to project a scheme for sinking test shafts in all the *ilots* into which the ancient city was divided by its rectangular streets, as laid down by Mahmud Bey. Want of funds and vacant spaces has retarded the

<sup>&</sup>lt;sup>1</sup> I have my doubts, as I shall state later on, as to the soundness of Mahmud Bey's map. In any case we know Alexandria to have been laid out on a rectangular plan (Diod. Sic. xvii. 52); and for Dr. Botti's purpose, uamely, "quartering" the ground, one kind of chessboard served as well as another.

execution of this excellent project, but some progress has been made and certain negative results at least obtained upon the north-eastern and eastern portions of the ancient city. I shall have frequent occasion later to speak of Sig. Botti's work.

As a result of the stimulus given to exploration by the scheme above mentioned a local archeological society was formed, the members being drawn from all nationalities; and in 1893 a communication reached the Hellenic Society of London, asking for a grant-in-aid. Being at that time under orders to proceed to Egypt on behalf of the Egypt Exploration Fund, I was asked by the Committee of the Hellenie Society to report on the matter. I did so in April, 1891, and a small grant was made subsequently from the funds of the Society. The main result of my visit, however, had been to inform me how much uncertainty hung still over Alexandrian topography, and how little was known definitely either as to the existence of buried art treasures or the feasibility of recovering them; and therefore, in the course of the summer of 1894, I recommended to both the Egypt Exploration Fund and the Hellenic Society that it was advisable to expend a small sum in testing the site. Backed by these two societies, I came accordingly to Alexandria in the middle of February, 1895, and with the co-operation of Messrs. E. F. Benson and E. R. Bevan, of the British Archeological School at Athens, conducted exeavations for more than two months. My two coadjutors were concerned mainly with the trials which we made in the eastern cemeteries (v. infra for their Report), which are in the main on Government land. I personally looked after the soundings in the town itself. For driving galleries under the mound of Fort Kom el Dikk, General Sir Forestier Walker had most kindly placed sappers at my disposal; and for this favour and help which I received in carrying out this part of the work I have to thank him and the other military authorities. My requests for leave to sink shafts in the town were met everywhere with ready acquiescence, and especially I have to thank Baron J. de Menasce, the brothers de Zogheb, and Messienrs Pandeli Salvago and Poilay Bey, the manager of the Daira Toussoun. Mr. Reeves, of the Imperial Ottoman Bank, and Mr. Goussio, of the Anglo-Egyptian, did me great service in smoothing my way, and Signor Botti in giving me information about localities. The Societies, which I represented, owe to them all gratitude, and not less to Sir Charles Cookson, K.C.M.G., C.B., and to Rear-Admiral and Mrs. Blomfield, who helped me much with the preliminary negotiations and while the work was in progress. The portable objects found were given, so far as I had a right to give them, to the local Museum, in accordance with the understanding arrived at with M. de Morgan. Unhappily, they cannot be said to have added materially to its treasures!

Before the different quarters are considered in detail, let me state an obvious consideration which affects the question of excavating in Alexandria, as compared with other possible sites.

Natural conditions—the sea, the desert, and the Lake Marcotis—confine the inhabitants of modern Alexandria to much the same area as they eccupied in the days of the Roman Empire. It is true that the present port-town stands mainly on ground which has been gained from the soa since the construction of Soter's great mole, the Heptastadium, but such gain is balanced by the loss of the old coast strip round the east of the Great Harbour, which, together with the island of Antirrhodus and most of that of Pharos, has subsided beneath the waves. The modern city has also a population considerably less numerous than the ancient, and on the eastern side fails to fill out its old limits; but on the western it extends ont to or even beyond the former confines, and has made sufficient progress eastwards in the last twenty years to have covered more than the centre of the Ptolemaic city. So far as we can fix the topography of the latter, all its greatest buildings and monuments stood within the area covered now either by the inhabited quarters of Alexandria, or by the encroaching waves. It is true that much of the modern city is of very recent growth and not yet closely built, and, like all Oriental towns, includes a good deal of garden ground, but its open spaces are not really large; they are private property; they have an ever-increasing value, being situated within an ever-growing city; they are destined in many instances for building lots, and their ultimate fitness to fulfil their destiny is not increased by the disturbance of the soil or the extraction of the stones.

In my project of sinking experimental shafts within the inhabited area, I was met more than half way (as I have said already) by several owners of land; but naturally the latter stipulated for the refilling of my soundings; the proximity of houses rendered it generally impossible to continue far in any direction, and one had to work in a general atmosphere of confinement and sufferance, which felt irksome indeed after the freedom of the desert.

<sup>1</sup> Diodorus (xvii. 52) gives over 300,000 as the population in his day, i.e. end of the 1st century B.C. Now it is under 250,000.

For the sake of clearness it will be best to take the site in two parts, divided by the line of the modern Boulevard de Rosette, produced on the west to the convent of the Franciscan Sisters (anciently the Mosque of the Thousand-and-One Columns), and on the east along the Ramleh chaussée to Hadra. In the northernmost of these divisions fall the sites of all the monuments about the ancient Port, whose positions relative to one another are assured by Strabo's description of the coup d'will presented in his day to one entering the Great Harbour. In the southernmost division, or at least on the southern fringe of the northern division, will be found the sites of the inland monuments, whose positions are to be conjectured by reference to the known sites about the Port, checked by a few indications obtained here and there from literary sources or discovered remains.

It is intended that this should be not an Essay on the topography of ancient Alexandria, but a Report on the feasibility and comparative utility of prosecuting research there; and it is addressed not to those who have a local interest in the site, but to foreign societies. Consequently I say nothing of such buildings as the ancient Walls, Gates, and Quays, nor again of the lesser monuments, once or twice obscurely mentioned, such as the Paneum, the Rotunda of Eutycheion, the Tetrapylon, or a score of others. No foreign society, which can find almost virgin sites, could be invited to search in Alexandria for obscure Græco-Roman ruins or bare topographical indications.

#### A.—NORTH OF THE BOULEVARD DE ROSETTE.

STRABO (p. 794) begins with the Lochias promontory, and we may take its modern representative, the *Pharillon*, as our castern limit; for we know of no building of importance situated beyond it and within the old *enceinte*. The eastern limit of the latter corresponds nearly to the "French lines" thrown up in 1805.

The Valaces.

The Lochius, on which stood a Palace, perhaps that of Alexander himself, is now for the most part under the sea. The shoal rocks, marked

on the charts off the Pharillon, together with the rock of the Pharillon itself, and the half submerged isthmus which connects it with the disused Fort, represent the old promontory; and all that is left of the Palace appears to be a single foundation course of fine masonry let into the rock on the western side of the isthmus, at about the present mean tide level.

Strabo mentions as next in view  $\tau \dot{\alpha}$  endotépo  $\beta a\sigma i\lambda \epsilon i\alpha$ , with their sumptuous grounds. Below these Palaces was situated a small private harbour, excavated in the beach and capable of being closed; and off it lay the island of Antirrhodus, with a Palace and harbour of its own.

I take it as certain that the latter island is represented now only by shoals; and if the island and all on it have vanished, it need hardly be said that the Private Port is no longer to be seen. A visit, however, to the beach below the old Quarantine Station and the Tannery, will convince anyone that the sea has swallowed also a mass of constructions once situated on terra firma. From the Lochias, right round to the Tour Romaine (near the Ramleh railway company's station), the eliff (which is a mere conglomeration of potsherds, refuse, and débris of construction) shows everywhere vertical sections of walls in brick and stone, and horizontal lines of concrete or brick pavement. In the water itself are to be seen long white lines of masonry, sea-worn and flush with the sand; these have been taken for remains of the Quays, but in all probability they are merely the lowest courses of large walls, perhaps of the Palaces, which the waves have beaten down or sucked away. When the sea is ealm and clear, celumns, capitals, mouldings and squared blocks may be seen lying pell-mell on the bottom for some distance out below low water

It is most probable, therefore, that the Palaces, which lined the shore in Strabo's time, have disappeared beneath the encroaching waves, and their remains are to be songht only with the dredger. They had, however, large grounds (Strabo, loc. cit. supra) and, doubtless, many appurtenances; and their domain must have extended back from the sea as a long strip between the Jews' Quarter, huddled under the eastern wall, and the Theatre. The latter is represented nowadays probably by the Hospital hill; the former by the high ground of Chatby about the French lines. The Palace domain, therefore, must include the low-lying

<sup>&</sup>lt;sup>1</sup> The fact of a subsidence of the coast of the Delta having taken place in comparatively recent times is, I believe, not questioned by geologists.

<sup>&</sup>lt;sup>2</sup> Cf. Philo in Flaccum, p. 525.

ground between these points, occupied now in part by cemeteries, by the village of El Maritza, and by the canal, but in part still open; and the domain must have extended at least as far as the Saracenic fosso and wall, if not up to the line of the Canopic Street.

This region, although one of the most open in Alexandria, does not promiso well for excavation. As to its northern part the cliff gives us sufficient indications; for the escarpment displays down to the sealevel coarse structures of a later period than the Ptolemaic. We appear to have now in this region the ruins of a Roman residential quarter which grew up behind the Palaces in what was once their grounds. A glance at the escarpment will show that imported earth full of coarse pottery and stones descends right to sea water, and as the level of fresh water is higher than that of the salt, an excavator would find himself in mud ere he had penetrated the Roman strata. As a matter of fact many soundings have been made in the open ground between El Maritza and the Hospital, and, in consequence of these, fragments of syenite lie near the Ramleh railway line; indeed, last May Dr. Botti found a number of terra cotta fragments near the summit of the hill on the east slope; but I have been unable to discover that any walls in a decent state of preservation, or any antiques of value have ever been discovered there.

As to the southern part of this region, now covered in the main with the Greek houses and gardens on the north side of the Boulevard de Rosette, and intersected by the mediaval fosse, I can speak from experiment. Knowing that during the building of the house of Baron J. de Menasce, a large granite column had been found, although alone and at no great depth, and that some large structure, either the Gymnasium, or an inland Palace, was to be expected hard by along the line of the Canopic Street, I looked for a site for a sounding in this direction; and, by the great kindness of Mons. Pandeli Salvago, was permitted to dig in the plot which intervenes between his brother's house and the Boulevard, and was occupied at the time of my visit only by a ruined Arab house.

I began with a pit 8.50 m. from N. to S. and 6.50 m. E. to W. on the east side of the house, at a distance of 125 feet from the fence on the side of the Boulevard de Rosette, and 27 feet from the fence of the plot on

¹ The Gymnasium has been placed about here by most topographers, but on no better evidence than the single statement of Strabo that the Canopic Street led from Necropolis  $\pi a \rho \dot{a} \tau \dot{b} \gamma \nu \mu r d \sigma i o \nu \mu \dot{\epsilon} \chi \rho i \tau \dot{\eta} s \tau \dot{\nu} \lambda \eta s \tau \dot{\eta} s \kappa a r \omega \beta i \kappa \dot{\eta} s$  (p. 795). On which side of the street was it then, and at what point of the three and a half miles (forty stades according to Diodorus, thirty according to Josephus B. J. ii. 4, Strabo, p. 793) of its course?

the east. The surface earth was very dry and loose; at the north end of the pit we found, at 3 ft. depth, one course of a wall one stone thick, resting on earth. Descending further we found very little pottery or loose stones, some fragments of marble-paving, Syrian or Italian, but no trace of industrial occupation of the site. At 11 feet we hit the top of a large wall made of small stones, very strongly welded together with mortar containing sand and brick-dust. Clearing away still deeper, I found this wall to be 8 feet 6 inches across from face to face. Of its elevation roughly 4 feet survived, and it ran at an angle of 340 deg. Eventually we uncovered a length of 17 ft. on the south side of the pit: then occurred a break, after which a fragment continued, whose western face had been stripped to a depth of 3 feet. A much ruined wall, originally at least 6 feet thick, returned eastwards, starting from the break in the first wall; but so many of its stones had been abstracted that it was hard to say where its true faces had been, and it presented, when found, the appearance of a rude stair. In order to investigate west of the big wall we found it necessary to enlarge the pit, and in so doing cut through two layers of very coarse concrete at 5½ and 8 feet below the surface, and found two rough walls resting on loose earth, running 2 feet apart westwards from the line of the big wall. They seem to have been built much later than the latter, outside of which on the west we found a coarse bed of concrete 3 inches thick, and below it a deep drain constructed of small stones, running west. In the drain was discovered a rude unglazed ampulla of a type common in Alexandria, bearing stamped on the one side AFIOYMHNA round a cross, and on the other the saint (Menas) standing between two animals, apparently kneeling camels. In the debris near the wall were found an egg-shaped bead of speckled diorite, a very coarse lamp, some fragments of bone handles, and a seated statuette in late and coarse blue-glazed ware, perished almost beyond recognition.

Having cut the concrete, I dug down 15 feet more through rough stones and loose earth, finding no traces of construction (other than the foundation courses of the big wall above) nor any antiquities. The level of fresh water was reached exactly 30 feet below the surface, and after persevering 2 feet more into the mud I desisted, and, according to the terms of my contract with M. Salvago, had the pit filled in again. Subsequently I had a small second pit sunk at 20 feet from the Boulevard de Resette on the line of the big wall found already. The wall was found here also in the same state of ruin; and this latter pit yielded no antiquities or further indications.

The results may be summarized thus: a massive structure, probably (to judge from its mortar) of Roman date, exists here just north of the line of the Canopic Street, but whether part of the Gymnasium or a Palace there is absolutely nothing to show, but at any rate apparently not put to any industrial use. The existence of a Christian object in its drain proves late occupation. There is no trace of any older structure beneath; and the ruinous condition of the walls, and the absence of antiquities among the débris, indicate that the Roman building has been thoroughly stripped. This latter fact, taken together with the poor quality of the concrete flooring, should deter anyone from exploring farther this particular site.

A short distance to the north-west of this plot of land, pits were being sunk for the foundations of a house, to be built for Mr. E. W. P. Foster; and from an examination of these I learned that loose earth and stones descended at that point to the fresh water level (35 feet) without containing a trace of any important structure. Still further north, the city fosse has been cut to a depth of about 15 feet, and now shows no indications of having pierced large buildings. From this point to the sea stretches much open land, on which some day something may possibly be found somewhere; but the chances of anything of early date or good condition existing between the late ruins found by me, and the late ruins revealed by the escarpment of the cliff, are so small, and the chances against any one spot more than another proving productive are so many, that no one could be recommended to select this region of the Palaces as a field for excavation.

West of the domain of the Palaces lay a group of large buildings. So far as we can gather from a comparison of Strabo with other authorities, on the foreshore itself was situated the Poseideion, apparently used at a later period as a Tribunal (Acts and Enlogy of S. Macrobius—the governor, before whom the saint appears, sits in his Tribunal at a place called Poseidon on the sea-shore); and in front of this temple, on an artificial peninsula, was Antony's "Timonium." Immediately adjoining the Poseideion on the west must have been the Emporium, for Strabo says that the former was  $\mathring{a}\gamma\kappa\acute{o}\nu$   $\tau is$  . . .  $\pi\rho\sigma\pi\epsilon\pi\tau\omega\kappa\acute{o}s$  of the latter; and west again of this were the Apostases, or Magazines, and the Docks, extending as far as the great Mole, or Heptastadium, which connected the mainland with the Pharos. Inland, immediately belind the Poseideion (for it is mentioned by Strabo as above Antirrhodus), was the Theatre. The latter was connected with the nearest of the

Palaces (Cæsar, Comment. iii. 112), and used by Cæsar as a citadel, commanding approaches to the port and docks during that period when the Alexandrian mob were bringing to the direct straits the master of the Roman world.

Before mentioning the Emporium (except in relation to the Poseideion) Carrenam. Strabo alludes to the Casareum. Philo (Leg. ad Caium 22), also describes the latter as showing magnificently from the port, and Pliny (N. H. 36, 14) says that two obelisks stood ad portum in Casaris templo. The Casareum was therefore quite near the sea; but it seems to me that Strabo's words in connection with the Poseideion imply that the Emporium extended continuously from the latter to the Apostases, and therefore in front of the Casareum. Vicinity to the port and pre-eminence above low buildings on the foreshore are all that a reasonable interpretation of the words of Pliny and Philo demands.

If correct, this conclusion has an important bearing on the question of the subsidence along the foreshore. The situation of the Caesarenm was marked up to 1878 beyond all reasonable doubt by a still standing obelisk, whose site is now close to the beach and fifteen years ago was closer still, for much material has been tipped into the sea behind the Ramleh Boulevard to secure the site of the new houses built since the events of 1882. The Emporium, therefore, must have been absorbed by the waves at this point; and, if so, there can be little or no doubt that the Poseideion and Timonium have suffered the same fate.

A foreign Society, however, could hardly be expected to devote its funds to exploring the Poseideion, or Timonium, or, indeed, the Theatre of Alexandria, so that we may pass to the consideration of the Cresareum, remarking merely in passing that no certain trace of any one of the three first mentioned has ever been found. The site of the Theatre should be on or about the high ground occupied by the new Hospital; for probably it was clevated, if used as a citadel, and it must have been quite contiguous to the Quarter of the Palaces; but Signor Botti failed to find in the pits which he dug in 1894 on the north-west and north-east of the Hospital hill any decisive indications. At some later period a church seems to have been built on this site. Possibly it would be better to

<sup>1</sup> Pars crat regiae exigua in quam ipse habitandi causa initio crat inductus, et theatrum conjunctum domui quod arcis tenebat locum aditusque habebat ad portum et ad reliqua navalia. I see no reason to doubt that the main Theatre is intended here: only a very massive building could have been so used by Cæsar. The use to which he put it has often been paralleled since his time, e.g. in the case of the Theatres at Orange, and of Herodes Atticus at Athens; and of amphitheatres almost wherever they still exist.

search for the Theatre still nearer to the present sea-beach. The site of the Poseideion is probably occupied partly by the martello-tower which now stands on a projecting point: the site of the Timonium is in the sea.

The remains of the Cæsareum, afterwards a Patriarchal Church,<sup>1</sup> and not finally destroyed till 912 A.D., have been sought often, and lately most industriously by Signor Botti. The general locality is fixed, indeed, by the site of the obelisks, but as it is not known whether these stood north, south, east, or west of the Temple, we cannot say whether the actual shrine is to be sought in the sea or in which direction on the land. Neroutzos tried to determine the axis from a massive but much ruined wall found in 1874 in digging the foundations of the house Zahir Debbane, on the Boulevard de Ramleh: this ran N.N.W. to S.S.E. A stele dedicated by naval decurions of the time of the co-Emperor Lucius Verus was discovered at the same spot and date. I have been informed also that large granite columns have been revealed in digging foundations a little west of the British Consulate, and on the same side of the street. In 1892 dredging was tried by Signor Botti in the sea just in front of the site of the Needles, and large inscribed granite blocks, some bearing cartouches of Rameses II., were recovered; these the discoverer suggests may have been built into the Pylon of the Cæsareum. In 1893 he tried again, and found other similar blocks, imported from a temple of Ptah at Tanis, also caps, drums, vases, an inscription of Caracalla, and a fine capital of the Patriarchal Church. Neither the bottom of the sea, however, nor land under houses can be recommended for excavation, except where the precise locality of a treasure is known. The only land in this vicinity still really open for tentative operations is that lying immediately south of the Ramleh station. In 1893, Signor Botti sank four soundings in various parts of this open space, finding water at 6 to  $6\frac{1}{2}$  metres, but nothing above it except unimportant ruins, Byzantine tombs, and traces of industrial occupation. He concluded, probably justly, that the open ground lies outside the area of the Cæsareum altogether, and that, though the peribolus of the latter may have extended up to or even beyond the Bonlevard de Ramleh, the main part of the Temple site is now in the sea.

In any case there are too many buildings in the vicinity for any serious excavation to be made: and even were this not the case, I doubt if much could be expected, where soundings have revealed so far only the merest

<sup>&</sup>lt;sup>1</sup> Cf. St. Epiphanius In Haer, ii. 2, p. 728, for a list of the churches in Alexandria, existing in his day beside τη νῦν κτισθείση τῆ Καισαρεία καλονμένη.

foundation courses of masonry, and in the case of a building so long occupied and so often ruined as the Cæsareum. Begun by Cleopatra as a monument to Antony, and finished and dedicated by Augustus, it suffered at least four sackings and burnings at the hauds of Christians, pagans, and Moslems. There can be little enough surviving of the splendonrs of the imperial fane, which Philo painted in such glowing terms for the edification of Caligula.

Any remains that may exist of the Emporium, the Apostases, the Buildings on Navalia, the Heptastadium, the buildings on the Pharos island or round the the Quays. Eunostus Harbour (i.e. the present port), are either under the sea or beneath occupied land.<sup>2</sup> They cannot be explored, and are probably not in the least worth exploring. As is well known, the present foreshore on the west of the former Great Harbour and on the east of the Port, now in use, is of modern formation, being conglomerated partly of silt, which has been banked up naturally on both sides of the Heptastadium, a partly by material thrown out recently in front of the Ramleh Boulevard. The northernmost part of the Ras el Tin quarter stands on as much of the old Pharos island as the sea has spared: but the rest of that quarter, with the whole of the Marina, is built upon new ground. The line of the ancient Quays runs off from the present foreshore on a level with the western end of the Boulevard de Ramleh, and, cutting across the apper end of the Place des Consuls, passes before the Hôtel Abbat, and from there runs to the Convent of the Franciscan Sisters.

Therefore we may reckon as out of our account altogether all north and west of this line. The great Place des Consuls and all to the right and left and below it have no interest for the exeavator; while immediately above the Place, extending up to the alignment of the western part of the Boulevard de Rosette, lies now the Frank business quarter, closely built over and, therefore, equally out of the sphere of practicable exploration.

In a triangular space, however, of which the Rne Cherif Pasha is the Minor base, and the Bonlevard de Ramleh makes one side, produced to meet the Monuments. Boulevard de Rosette, which is the other side—the Quarter of the Palaces, already considered and condemned, being at the apex—there are some spaces open still, but of small extent. No ancient building of import-

Suid. s. v. ἡμίεργον.

<sup>2</sup> The twenty columns of porphyry found under the Antoniades mansion on the Boulevard de Ramleh, 300 yards south-west of the site of the Needles, are perhaps survivals of the Apostuses.

<sup>3</sup> Strabo's words (p. 58) almost imply that even in his day the Heptastadium had ceased to be a mole and become an isthmus.

ance seems to have stood about here. Such edifices as the *Tetrapylon*, remains of which might be found near the Zizinia Theatre, the Palace of Hadrian <sup>1</sup> (of which, according to Neroutzos, some remains were found in 1880 under the new Greek Hospital), or the Temple of Saturn, later the Church of Alexander, to be sought under the neglected gardens which intervene here and there between or behind the houses, were not of sufficient moment to warrant foreign archæologists in undertaking now a search for their ruinous remains.

The sites of the Gymnasium and Palaestra are, as I have indicated already (note, p. 6), utterly uncertain; they may be equally as well on one side or at one end of the line of the Canopic Street as the other. The former, celebrated by Strabo (p. 795) as the finest building in the city, and possessing over a stade of portieoes, was rifled it seems by the mob very early in the 1st century (Philo, de Virt. p. 565). I doubt if it would be worth the while even of local antiquarians to seek for it now. In order, however, to ascertain the depth of the deposit, and the general state of preservation of the ancient town at this point, I sank a pit in a plot belonging to Baron J. de Menasee, immediately to the west of the Zizinia Theatre, but some 170 feet back from the line of the Boulevard. Had the proprietor been willing, I should have preferred a plot lying immediately on the street front; but probably the one afforded as well as the other would have done the desired indications. My sounding was at first 17 feet × 111 feet, and I carried it down to 17 feet, cutting at the bottom for 6 inches into virgin yellow sand nearly as hard as rock. The surface earth was loose and full of stones and rough red pottery. At 7 feet we struck, at the west side of the pit, a very coarse but very strong Roman payement of concrete laid on bricks, the latter resting on lime-mortar. The whole stratum was 1 feet 8 inches thick. On its surface was a circular depression 3 feet in diameter, evidently the bed of a columnbase uprooted and removed. Digging to the west and north, I found that the concrete did not continue. Continuing to descend below its level, we hit at  $12\frac{1}{2}$  feet the top of a wall of small stones mortared. There were two courses of elevation 3 feet thick, and two courses also of a wall returning south, but in this case only 2 feet thick. Below these descended to the virgin earth foundation courses of little better than This structure was evidently the ruin of part of a Roman house, fragments of whose wall-stucco, red, yellow and blue, were found

<sup>&</sup>lt;sup>1</sup> Is this the same as the *Gymnasium* of Hadrian, later of Licinius, mentioned by St. Epiphanius (in hacr. ii. 2, p. 728) as converted into a church?

in the earth. On the opposite side of the pit we cut a small drain just below the level of the lowest elevation-course of the house. One or two quite modern objects (e.g. half a round shot) were found near the surface, but nothing at all at the Roman level, or below it, not even any fragments of distinctive Greek ware.

My overseer—a builder's foreman by trade—informed me that he had been engaged upon the building of several houses in Cherif Pasha Street, and other localities between the street and the point where I was working, and that, although the foundation had been sunk in all cases down to the virgin earth, no antiquities of any moment at all had ever been found. M. Alexandre de Zogheb showed me a spot just to the north-west of my pit, where a stele dedicated to Isis Plousia was found in 1872, but assured me that in the foundations of the houses built by or for his family in that neighbourhood nothing had been turned up. The same report was given by men who had been engaged in the building of the Zizinia Theatre, and by owners of houses (e.g. M. Goussio) to the east of that edifice. Neroutzos relates the finding of Roman constructions near the Synagogue, and guesses them to be remains of Hadrian's Palace: and ruined walls, caps and shafts found in building the Municipality have been referred to the Temple of Saturn, but in neither ease on any better ground than sheer conjecture. The one point established beyond doubt is the state of utter ruin in which the scanty remains of even Roman times are uniformly and everywhere on the north side of the Boulevard de Rosette.

#### B .- South of the Boulevard de Rosette.

This part of the ancient site is more open. The eastern end is occupied by the vast Roman cemetery of Hadra, in which we made test-borings (v. infra, p. 28), and there is probably nothing better to be found there than Byzantine houses with rifled graves below them. Some fragments of Roman brick-work project from the sides of fosse, belong-

¹ Alexander himself is said to have ordered a temple "Ισιδος Αἰγυπτίας to be erected in the city (Arr. Anab. iii. 1). If this dedication to Isis Plousia implies the existence of a temple, it might be the Founder's own foundation, and, if so, worth seeking. But the whole vicinity is built over now,

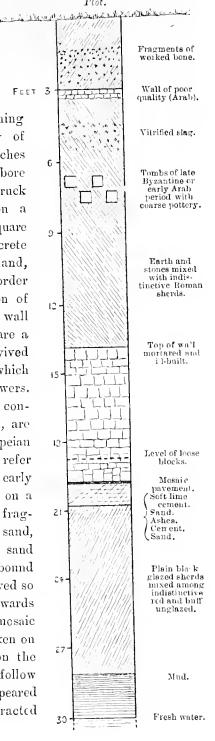
ing evidently to a building entirely ruined. Whatever may be the topography of the rest of the site, it is certain at any rate that no monument of importance was situated so far east as this, and we may ignore therefore all the region outside the Rosetta Gate.

Inside the gate we find a thin strip of houses bordering the Boulevard, and behind them ground only partly enclosed, but, as we proceed eastward, rising steeply into a hillock with two summits, both apparently artificial, on one of which is situated the Reservoir and some houses, on the other Fort Kom el Dikk. In the low ground between this hill and the Boulevard there were only two plots of any size still open to me, the one very near the Gate, the other opposite to, but a little west of, the Zizinia Theatre. As the latter was near the centre of the old city I elected to make a sounding upon it, and obtained permission readily from the de Zogheb family, to whom it belongs.

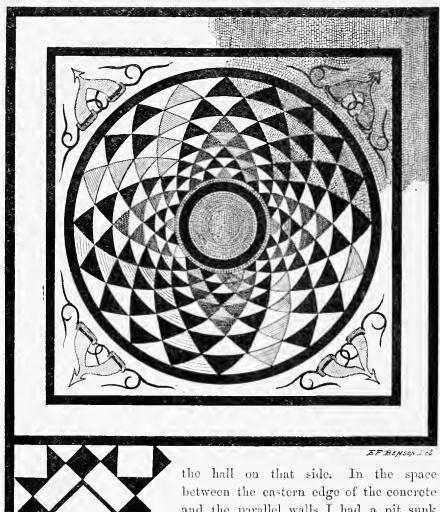
A house which had occupied the site formerly was destroyed by fire some years ago, and its ruins removed. A large depression 13 feet deep exists now, where the basement had been, on the line of the Boulevard itself. I made a square pit in this depression as near the Boulevard as I could safely go. The earth was clayey and very full of stones, evidently the result of intentional filling in. At  $10\frac{1}{2}$  feet down (i.e. 23 to 24 feet below the level of the street), we hit the top of a small cistern or large conduit, arched, made of small mortared stones, and once lined with cement; but the whole construction was of poor quality and in ruinous condition. Digging down 2 feet more we met with water, which came pouring in on all sides as from some leaking receptacle, and quickly flooded the pit. As the remains in the latter had proved so devoid of interest, I did not essay the probably impossible task of exhausting the water.

I tried next at the back of the same plot, immediately under the high wall built to retain the Fort mound. As this point is within the region where important monuments are to be expected, such as the Soma, the Mausolea, and the Museum, I made my pit larger than usual (31 feet  $\times$  19 feet), so as to obtain a decisive view of the state of things underground. The upper earth was found to be full of evidences of industrial occupation of no very remote date; there were quantities of cut bone, the remains of a button manufactory, and lower down refuse of glass-works. At 3 feet a poor wall of stones, laid loosely on earth, appeared, and at  $6\frac{1}{2}$  feet many poor graves, made of stones set up edgewise 1 foot 8 inches apart, and roofed with small slabs. These all contained skeletons, head to the west, but very seldom any pottery, and that of the most poverty-stricken sort. Probably the tombs date from the latest

Byzantine period, to judge from a Stratification of Surface Deposit on Zogheb miserable ampulla, stamped with the almost unrecognizable figure of a saint, found beside one of the graves. As we descended, large square blocks began to be found lying loosely, and FEET 3 at 143 feet we hit the top of an indifferent wall one stone thick, running at an angle of 229°, and presently of another parallel at only 1 foot 3 inches interval. The inner faces of both bore remains of plaster. At 20 feet we struck at the western end of the hole on a pavement, composed of a mosaic square (4 feet 8 inches, see fig.), with a concrete of marble, porphyry, etc., on either hand, and at top and bottom a floral border 1 foot 4 inches wide. The direction of its lines is the same as that of the wall mentioned above-of the mosaic square a sketch is appended: on the north survived a fragment of a smaller panel, in which appeared a bird's head and two flowers. The quality of the material, and the conception and execution of the design, are about as good as in average Pompeian mosaic, and I should be inclined to refer this pavement to the end of the 1st or early in the 2nd century A.D. It was laid on a bed of soft lime cement mixed with fragments of brick; below this was hard sand, then ashes, then cement, and then sand again: but these layers were not bound to one another in any way, and proved so treacherous a substratum that afterwards we were quite nnable to lift the mesaic upon them. The pavement was broken on the north and east, but continued on the south and west as far as we could follow it. No wall nor any column-bases appeared in the space to which the pit had contracted



by this time: but on the north, fallen blocks were to be seen lying on the pavement, evidently the remains of the wall which had bounded



the hall on that side. In the space between the eastern edge of the concrete and the parallel walls I had a pit sunk until we reached water, at 30 feet. A few bits of plain black glazed-ware were found

below the level of the concrete, but neither below nor above were any autiquities of interest or value, nor remains of any structure in good masonry. Here again the general ruin and spoliation of the ancient buildings were established.

This conclusion was confirmed still farther by yet another pit, which I sunk about 100 yards to the west-south-west, in the north-east

corner of a large plot belonging to Prince Toussoun, immediately behind the Tribunal des Indigènes on the north, and the Consulate of France on the east. The surface of this plot had been formerly at a higher elevation, but some three to four metres of earth were sliced off it a short time ago, and first an Exhibition and then a café-jardin established on the levelled site. Only one foot below the new surface there is a marble pavement laid on a thick cemeut bed over most of the north of the plot, but its thin small slabs are probably early Arab work, and the deposit for 6 feet below at least looked like deliberate filling in to support the pavement; among it were some bits of late Roman stucco and a small limestone drum. At 11 feet a small conduit was found running north-east. At 15 feet 6 inches we hit a wall running about 314°. In thickness it was only 1 foot 8 inches, but the stones of its single course of elevation were of good size and well cut: one was 2 feet 4 inches long. We uncovered about 10 feet of this wall without meeting with a return. On the east side occurred a layer of concrete much broken. Cutting through this we went down to water at 28 feet, finding the foundations of the wall descending to that level, but no articles of any value or potsherds other than indistinctive Roman red.

It will be noted that the wall, found in this pit, is (practically speaking) at right angles with those found in the pit on the Zogheb plot. I conclude, therefore, that in this central region at least the ancient town was built very far from the lines of the modern, and that the axis of the old Canopic Street must vary much at this point from that of the Boulevard de Rosette: the former must have read about 230°, the latter reads 260°.

<sup>1</sup> The character of my Report being what it is, it fortunately does not enter into my province to deal at length with the researches of Mahmud Bey el Fallaki, a MS. translation of whose very rare book (Mémoire sur l'ancienne Alexandrie, &c., Copenhagen, 1872), was put most kindly at my disposal by Rear-Admiral Blomfield, R.N. Anyone, however, who attempts to write a topographical memoir on the eity will have to appraise, and, I think, condemn in the main, the work of Ismail's Court Astronomer. Mahmud Bey had, it is true, facilities in 1870 which exist no longer in 1895: not only was an autocratic Khédive behind him, but the site was far more open. The new Greek quarter did not exist, and there was hardly a house east of Cherif Pacha Street. Mahmud Bey had had, however, no sort of training for the work he was set to do; not only did he not know any classical language, but I am given to understand that this was his first essay in exeavation. "As for his competence as an archeologist," writes Yacub Artin Pacha in reply to a question of mine, "I do not think that he had any." I am glad, therefore, that I can avoid basing any of my own work on his. I feel the greatest uncertainty as to his rectangular map of the city-not for one moment impugning his bona fides, but doubting his competence to ascribe dates to the street pavements that he found, or to determine to

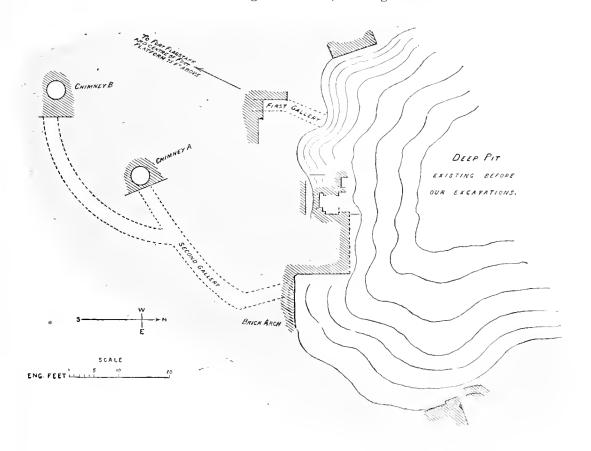
Kom el Dikk.

So much for the low ground south of the Boulevard. As regards the hill to the south of it, the easternmost or Reservoir summit is largely built over, and, as in all probability this is the same artificial mound which, according to Strabe, supported the obscure Paneum, it need not be considered. The western summit is crowned by the Fort once called Fort Cretin, and now Kom el Dikk: the upper part of the mound was thrown up at the same time as the construction of the fort. The lower part, though older, is evidently not very ancient, as it has been heaped up over the brick ruins, which are to be seen in the large hole which exists in the terrace behind the Fort. This hole was due in the first instance, it is said, to an accidental explosion of gunpowder, and has been deepened since by archaeological researchers. All this mound belongs to the War Department, who would, of course, not permit it to be cut away, nor any work to be undertaken which might prove prejudicial to the safety of the Fort. The only method of exploring what lies beneath it is by mining, an expensive and unsatisfactory operation when archeological research is in question; faute de mieux, however, I had to resort to it, feeling that it was imperatively necessary to obtain some light on the nature of the great brick ruins on the north-eastern side, and to determine whether anything of firstrate importance is likely to exist still under the centre of the mound. To this end, therefore, I used the sappers, kindly placed at my disposal by the military authorities, and for two months ran a gallery or galleries from the east in the general direction of the centre of the Fort.

The first attempt was abortive (First Gallery on the plan). On March

what streets they pertained. For instance, his Canopic Street (on which all his grille of streets depends) lies at an angle which fits very ill with the direction of the walls found by me to the south of it; and if the pavement which he found in five spots at the extreme east of the site belongs to the Canopic Street (albeit of Byzantine date, not earlier, to judge from the depths recorded by him), that found by him opposite the Attarin mosque must belong, I fancy, to some other street altogether. I believe that Signor Botti has been unable to fit the walls, recorded by Mahmnd Bey, to the existing remains near Pompey's Pillar; and I should be very loth to repose much confidence on the Astronomer's delineation of the city walls, or his determination of the transverse streets "by sinking pits;" and still less on his observations under water in the Great Harbonr. To recognize and date ancient constructions underground is only less difficult than to recognize and date them under water: both require a training and experience far in excess of that possessed by Mahmud Bey. It is so hopeless to sift his work now, that I and all who treat of the site scientifically must, I fear, ignore him, and start de novo from the authorities and the existing indications.

6th we began to drive a gallery  $5\frac{1}{2} \times 3$  feet in direction 210°, and falling The Kom et 1 in 5 feet, into the loose rubbish on the face of the Fort mound. point of departure is about 75 feet below the platform on which the Fort stands, and the gallery was directed as accurately as possible towards the Fort flagstaff. After cutting through 10 feet of loose debris we hit a brick wall on the right-hand side, whose general direction was



slightly more southerly than that of our gallery; we deflected, therefore, a little to the left and followed the wall for 5 feet. At this point we encountered the face of a wall returning south. We explored it for a short distance, and, seeing that it continued, I decided to make an attempt to break through it in the hope of finding chambers behind. With great difficulty, for the brick was as hard as stone and the mortar almost harder, the sappers ent into it for a distance of 8½ feet; an iron bar was then driven 2 feet more and found to be still in brick work. It was useless to continue to cut into so gigantic a construction; the farther it was penetrated the more cramped became the space in which the men had to work, and, owing to the looseness of the stuff overhead in the gallery, we could not use blasting materials. We abandoned this gallery, therefore, on March 15th. The walls found in it are made of burnt bricks uniformly  $9\frac{1}{3}$  inches  $\times 4\frac{1}{4} \times 2\frac{5}{3}$ , laid as "headers and stretchers" on beds of mortar  $1\frac{1}{2}$  inches thick of two kinds, the one containing sand only, and the other mixed with brick-powder. The first kind occurred in the wall into which we cut, and another wall which we found first; the other in the continuation of the returning wall sonth: it would appear, therefore, that all was not built at the same time. There was no plaster on the face of the wall, and no antiquities were found in the gallery except sherds and glass of Roman date.

The second gallery was begun under a ruined arch, which shows on the south side of the pit. A gallery of the same size as the first was driven at about the same level and in direction 159° for 13 feet, the stuff extracted being earth and stones mixed with fallen ruins of the arch above. We then bent to the right, being sure of having turned the wall, and drove on 235°, the gallery falling about 1 in 6. After proceeding for 31 feet, a brick construction was encountered again. The wall proved thin, and, breaking through it easily, the sappers found themselves in a circular chimney 3 feet 3 inches in diameter, full of very loose earth. Behind it and on either hand was thick wall, which we had no mind to break through, and I directed the sappers, therefore, to turn the structure on the left, if possible, and proceed into the mound. This was done by harking back some 9 feet and breaking out on the left. The gallery was worked round gradually to a direction nearly that of the first abortive tunnel, and proceeded through the same packed earth and stones for close on 40 feet, making a total length of about 70 feet from the open air. But 9 feet from its end a brick wall in very ruinous state had been hit on the left, slanting across the line of the gallery. This had to be cut away, and finally a second chimney, of only 24 feet diameter, was broken into on the right. Once more we were faced by solid brickwork and could not proceed. It was evident that a large brick building, with many ramifications in a state of ruin, extended under all this eastern side of the Fort mound.

If things were to be elucidated at all we must penetrate lower, and reach a floor or some entrance into a corridor or chamber. To descend one of the "chimneys" was the obvious course, and I chose the one found first as being of largest diameter and in best condition. We began to

work down in it on April 15th. On April 22nd a passage was found crossing the shaft at 10 feet below the level of the gallery. We broke out on the left and found that a large chamber opened out at once, whose walls were of small stones, mortared, and its roof of brick. The door, communicating with the shaft which we had descended, was 2 feet 3 inches broad, and the breadth of the whole chamber 17 feet. The chamber, however, was filled up almost entirely with dampish earth, although the roof, so far as I could see it, was not broken at any point: only the under face of it had fallen in on the earth below. We cleared away the earth at the entrance in order to penetrate into the chamber, and by dint of crawling along under the roof, reached its opposite wall, from which a passage opened, also filled up to the top. The confined space, admitting only of one pickaxe being used at a time, and the necessity of hauling everything up the shaft, eaused the work to proceed very slowly, and we had made little impression on the earth in the chamber by April 29th, the date fixed by the withdrawal of the sappers and my own departure from Egypt for the close of operations. I had the frames withdrawn from the gallery, but a door left, so that the work could be resumed easily in the coming season, if it were thought desirable.

What, however, had I found? A very large brick structure of a residential character, certainly of Roman date, and probably not very early Roman, so packed with earth, that the filling must have been done by human labour. This filling, therefore, must have been the work of those who piled up the mound before erecting the Fort above; and it seems most probable that these same hands would have rifled thoroughly the brick chambers before filling them. Neither, therefore, does the building seem much worth exploring for its own architectural or historic interest, nor for the chance of its containing artistic treasures.

Seeing, however, that the lowest point reached by my working party was not nearly so low as the level of the Roman pavement found hard by in the Zogheb plot, there is reason to suppose that much exists below this particular chamber, whose own floor even we did not touch. To work below the point reached by us would be a matter of ever-increasing difficulty, owing to the small space available and the want of ventilation. It would be probably best to abandon altegether our gallery and shaft, and run a sloping adit from outside, cutting through all obstructing walls. Our own early experience, however, demonstrated how slow and painful this operation might prove to be; and, in any case, I fear that anyone exploring this structure would have to reckon on expending much time and money before arriving at a result, very possibly without ever arriving

at any result at all; for the inference to be drawn from the condition of lower remains elsewhere in the town is not favourable to the chance of any notable discovery being made at Kom el Dikk.

From such uniformly negative results, as these obtained south and north of the Boulevard de Rosette, it is necessary to infer that there is no sort of Roman Pompeii beneath modern Alexandria; that things earlier than Roman exist, if at all, for the most part under water; and that the remains of the old city have been stripped of valuables, and even cleared away in great part long before our time. In the face of these facts it seemed idle to explore the open spaces which lie still farther south and west, about Moharrem Bey and Pompey's Pillar. The ground about the base of the latter was being examined by Signor Botti, and, whatever his researches may determine as to the site of the Serapeum, or the Agora, or the "Acropolis" of Aphthonius, so far as they have gone they confirm to the letter my own conclusion as to the rninous state of ancient remains in Alexandria. To have to go down five or six metres in order to find the rubble cores of walls, broken potsherds of Roman epoch, and fragments of Roman granite entablature, is a fate to which a foreign society need not expose itself. Neither Roman columns, nor statues, nor waterworks, nor rifled Christian graves, are worth spending much money to discover, and nothing better seems to be promised by the open ground that lies between the Fosse and the Canal. The most part of it is in private hands; it is cut up among the gardens and houses of a steadily spreading quarter; and, except for the Serapeum, we have no reason to place within its limits any important public building.

The Soma.

Of the greater monuments, whose sites are placed usually south of the Boulevard de Rosette (namely the Soma, or Sema,<sup>2</sup> which commemorated the great Founder, the Mausolea of the Ptolemies and their queens, the Museum where was the great library of Philadelphus, and the Serapeum, including a library in Roman times) neither can the sites be fixed with any precision, nor does it appear likely that any considerable remains survive.

The Bruchium Quarter, in which all these monumeuts, except the Serapeum, probably stood, was reduced to a howling wilderness in the

<sup>&</sup>lt;sup>1</sup> Προγυμνάσματα, § 12. Rhet. Gr., vol. ii.

<sup>&</sup>lt;sup>2</sup> Ps. Callisth. iii. 34, and Strabo, p. 794. Zenobius and St. John Chrysostom write Sema.

time of Aurelian. St. John Chrysostom speaks of the Tomb of Alexander as having vanished in his day. From early in the 16th century until the middle of the 18th, we know that a little Moslem turbé, or saint's tomb, near the Church of St. Mark, was pointed out as the traditional site. This turbé has disappeared now, and its tradition been transferred to other spots, notably one near Pompey's Pillar.

The most sacred locality, however, in Alexandria, in the eyes of modern Moslems, is the Mosque of Nebi Dauiel, situated on the west side of Kom el Dikk, at the foot of the mound. Here is the actual resting-place of one Sidi Lokman el Hakim, and the reputed tomb of Dauiel the Prophet. The mosque is not far from the site of the Church of St. Mark, and therefore may represent the turbé called in the Middle Ages the Tomb of Iskender; but not knowing precisely how the latter lay as regards the church, we must leave the question open. Also the mosque's position will satisfy well enough the only topographical indications which have come down to us as regards the Soma; for it is probably within the ancient Bruchium Quarter, and at about the centre of the old city, where Achilles Tatius seems to intend us to understand τὸν ἐπώννμον ᾿Αλεξάνδρον τόπον to be.

These considerations, and especially a mysterious sanctity, have caused the mosque of Nebi Daniel to be identified by many with the actual site of the Soma. Of that opinion were Mahmud Bey and

<sup>&</sup>lt;sup>1</sup> Amm. Marcell. 22, 16, 15.

<sup>2</sup> Hom. 26, 12. ποῦ γὰρ, εἶπέ μοι, τὸ σῆμα ᾿Αλεξάνδρου; δείξον μοι κ.τ.λ.

<sup>&</sup>lt;sup>3</sup> The last person whom we know to have seen the body of Alexander was the Emperor Septimius Severus (Dio. 70, 13). If Ammianus (22, 2, 7) means the Soma by the "Speciosum Genii templum," through which he represents the Patriarch George to have passed exclaiming, "Quam din sepulchrum hoc stabit?", his will be the last mention of the tomb as standing. M.A.de Zogheb quotes St. Epiphanios (without reference) as an authority for the ruin of the Soma; and somewhere I have seen it stated that St. Jerome speaks of the Bruchium in his day as only a refuge for hermits. But a search through the ill-indexed Migne ed. of the former, and through three editions of the latter Father, has not resulted in my finding either reference. So I omit them in my text.

<sup>&</sup>lt;sup>4</sup> Leo Afric. p. 672 (Elzevir) "in medio Alexandriæ ruderum ædiculam instar sacelli constructam adhue superesse, insigni sepulchro magno a Machumetanis honore affecto memorabilem, quo Alexandri Magni corpus summi prophetæ ac regis, velut in Alcarano legunt, asservari contendunt." Cf. also Marmol, Deser. de l'Egypte, ii. 14, who apparently contents himself with plagiarizing Leo Africanus.

<sup>&</sup>lt;sup>5</sup> Clit. et Leuc. v. i. Strabo's statement that the Soma was μέρος τῶν βασιλείων, probably implies no more than that it stood on Royal Domain land, the latter including one-third of the whole area of the city, and being situated perhaps a little in all quarters.

Neroutzos, and lately the same view has been presented learnedly and exhaustively by M. Alexandre de Zogheb in an article published in the Revue d'Égypte. Primed with this belief, various people have descended into the basement of the mosque and seen "caveaux funcraires païens les plus magnifiques," vaulted halls with radiating corridors, and "granite monuments with angular tops." One enthusiast in 1850 is said to have descried in the dark a king sitting at the end of a subterranean passage with a gold crown on his head—a tale which has an enormous family connection all over the Levant.

The attention directed recently to the mosque has incited the local Moslems to guard jealously their holy place, and not only is excavation now rendered impossible, but a Christian is not admitted on any pretext to the tomb-chamber. There is no reason why this chamber should not cover the site of the Soma; there is equally no reason, in the present chaotic state of our knowledge of the map of the ancient city, to conclude that it does. The tradition passing from Soma to turbé, and thence to mosque, is broken too scrionsly to count for much, and general rather than precise locality is preserved usually by religious survival: the scant topographical data would be satisfied as well by a site a hundred yards distant in any direction. Finally, there is every reason to think that, if ever found, the site would prove rifled and ruined.

Mausolea.

The same may be predicted safely of the Mausolea of the Ptolemies, which stood in the same ring-fence as the Soma. They were in no way concealed, and were guarded less effectually by popular veneration than the Founder's Tomb. Consequently, they were looted probably at an early period, and no spoil from them is known to exist now. Their site must be somewhere near or under the Kom el Dikk Mound.

Museum.

The Museum, according to Strabo also μέρος τῶν βασιλείων, cannot be placed with any greater precision. The discoveries, detailed by Neroutzos as made along the western side of the Rue Nebi Daniel, might indicate any building, public or private; and my own comparison of the axis of the Boulevard de Rosette with that of the old Canopic street makes it improbable that the line of the present Rue Nebi Daniel represents at all exactly an ancient transverse street. For the rest,

<sup>&</sup>lt;sup>1</sup> Strabo, l. c. Zenobius (Cent. iii. 94) understands the Sema and some of the tombs of the Ptolemies to have been contained in one building. He relates a story that Ptolemy Philopator, having driven his mother to commit suicide, was constrained by evil dreams to propitiate her shade by burying her with all her forebears and Alexander himself in a new Mausoleum, which is the same as Zenobins (temp. Hadrian) knew as the Sema.

topographical data as to the position of the Museum are wanting altogether: it is by sheer conjecture that it is placed near to, or west of the reputed site of the Soma.

For the position of the Serapeum we have one datum only, viz. Scrapeum. Strabo's statement that it stood in the west part of the city, but within the channel conducting from Marcotis to the sea, which coincides pretty nearly with the present outfall of the Mahmndieh Canal. Rufinus, indeed, says that it was approached by 100 steps: but its elevated position, which served Caracalla as a point from which to watch his massacre, may as well have been artificial as not. It must have stood somewhere in the region of "Pompey's Pillar," but not on the rocky knob which now bears the Pillar itself. The latter monument could never have formed part of a peristyle, for it stands on no stylobate, but over a filled-up eistern. Its style is not much earlier than the date of the honorific inscription it bears, to wit, the reign of Diocletian; and the remains about it, exposed by the zeal of Sig. Botti, in 1894-5, show that the hill top was occupied by waterworks about the 1st century A.D., and by a cemetery in Ptolemaic times. It is possible that the rhetor, Aphthonius, had this Pillar in his mind when he alluded to a single towering column on the "Acropolis of the Alexandrians"; 1 but so far as I could see, nothing else in the vicinity fits in with the rhetor's description; which, indeed, I suspect to be a purely artificial exercise for the schools, compounded from hearsay descriptions of three distinct monuments, the Acropolis, the Pillar, and the Serapeum. Sig. Botti is finding, however, many remains of some important Roman building below the hill, on the east and south; and we may still hope that his industry will be rewarded by some elue to fix the site of a Temple, which more than all the monuments of Alexandria seems to have impressed the contemporary world.2

To sum up the results (sadly negative it must be confessed):—in the first place the depth and character of the surface deposit create in Alexandria

<sup>&</sup>lt;sup>1</sup> Sig. Botti first directed attention to this curious passage (cit. supra, p. 22), in which, as a specimen of  $\tilde{\epsilon}\kappa\phi\rho\alpha\sigma\iota s$ , or Description, a most obscure account is given of the "Acropolis" of Alexandria.

<sup>&</sup>lt;sup>2</sup> See e.g. Ammianus 22, 16, 12, and Pseudo-Callisthenes i. 31. The last named romance, written in part at least by an Alexandrian for Alexandrians, is very good evidence for details about the city. It alone preserves the number and names of the villages that existed previously on the site (Col. A, Paris), much information about the great subterranean aqueducts, mentioned also by Hirtius (Bell. Alex. 5), and the names of a dozen buildings and localities.

very serious difficulties. It is no uncommon thing to have to cut through twenty feet of comparatively modern stratification in order to arrive even at the Roman level; and in cases where the surface area, available for excavation, is itself small, a sounding, unless expensively timbered, will contract in twenty feet of descent to a very narrow well indeed. The expense, therefore, is apt to be very disproportionate to the underground space that can be displayed. In the centre of the ancient city the deposit is very unremunerative; little or none of it appears to be windlaid, but it is the result of continuous habitation since the Arab conquest by poor folk, who, hemmed between lake and sea, have had to throw their rubbish, and even bury their dead, over one and the same area.

In the second place, in descending below the Roman strata, and even before these strata are left behind, one comes to water before reaching virgin soil. In my sounding on the south side of the Boulevard de Rosette, in the plot once occupied by the house of Mons. Joseph de Zogheb, I have stated that I found water at thirty feet below the surface, with Roman foundations continuing down into it. Further to the northeast, between the old fortifications and the Boulevard de Rosette, I observed water in foundation borings at thirty-five feet below the surface, but not below the made earth and deposit. In the eastern cemeteries at Hadra, Chatby, and Sidi Gabr, the lowest layer of tombs is found frequently to be below water. It is not conceivable that the original burials were made at a flooded level, nor is it probable that in the city itself nothing but water exists below the Roman constructions, as at present seems so often the case. I believe that in consequence of a general subsidence of the land, the water has risen considerably over all the Alexandrian area since the early ages of the city, and that Ptolemaic strata, where such exist, often would have to be sought now in bottom-mud, two or three metres below the mean water-level. It follows also, alas! that there is little or no hope that papyri can be preserved even in the Roman strata, which lie immediately above the water, and are very damp from capillary attraction. The absence, however, of Ptolemaic remains is one of the most discouraging features of the site. In all my own soundings I found nothing below the Roman; the local Museum is, as its title states, Greeo-Roman, not Greek and Roman; excepting funerary objects found in the cemeteries, it contains hardly a score of things Greek or Egypto-Greek; and stray finds of which I could gain information, made in digging foundations and wells, or in levelling building plots, were in almost all cases Roman objects, or at best Greek handiwork, re-used in the Roman age. The Roman Alexandrians would seem to have rebuilt their houses and public edifices after a complete clearance of the remains of their predecessors, not, as in the mud-brick cities of Upper Egypt, breaking down previous constructions to a general level, and rising with each successive rebuilding some metres higher. It is therefore a Roman, not a Greek city, which is to be excavated at Alexandria; a city containing scattered Greek objects of art, no doubt, but these the relics re-used of a former age.

Roman sites, it is generally agreed, must be submitted to a severe comparative test, when considered as fields for excavation. The exploration of each and all has, of course, like that of Silchester or Chester in England, a local interest for the present inhabitants of a country whose history contains a Roman chapter; but when put into general comparison with all the possible sites of the classic world, a Roman site must be a Herculaneum, or at least an Ostia, to hold its own against the Egyptian, the Assyrian, or the Greek. From two of these three we have so much more to learn, for their civilizations are so much less known; from the last so much more to gain for the Treasury of Art. If the expenditure of thousands of pounds in acquiring lands for excavation purposes, and of other thousands in removing six to nine metres of earth from their surface, is to be recommended to subscribers, who have no local interest in a particular "Roman" site to supplement their general desire for the elucidation of the history of human progress, such recommendation must be coupled with an assurance that something like a Pompeii exists below.

That such is not the case at Alexandria I think my own researches, added to previous experience, conclusively show. Walls stripped of their facing and cleared away down to pavement level, and pavements backed through, prepare us for the damning fact—for fact it is—that hardly anything of really first-rate style has ever been found in Alexandria. Witness the local Museum, witness the local private collections, containing much that is interesting, much that is very good second-rate—next to nothing that is first-rate. Whatever objects of art of the finest periods or styles existed in Alexandria, it would seem, are either under water now (and how neeless it is to grope under water, except for a definite object, all excavators know), or have been abstracted long ago. The exploration of Alexandria is beset with too many restrictions, and promises too little return for the huge outlay involved, to be recommended to foreign societies. The chart of the ancient streets and walls must be made little by little, line upon line, by those who reside on the spot; to these

topographical knowledge alone is a sufficient reward, and doubtless there will be added unto them now and then, from a test shaft, or a foundation sinking, some valuable object. As things stand at present, the site of no monument, except the Cæsareum, is known certainly; and I doubt if any of the ancient charts, as accepted at present, can be relied upon. As there are, perhaps, few sites in Egypt that can be recommended to foreign excavators less than Alexandria, so there is none that more urgently needs persevering and enthusiastic local archæologists, watchful for every chance indication, and jealous for the preservation of all existing remains. Foreign societies might well subsidize such research as theirs, doing thus per alios what they are not justified in undertaking per se.

D. G. HOGARTH.

## C .- Note on Excavations in Alexandrian Cemeteries.

EXCAVATIONS were made this year in the cemeteries to the east of Alexandria at three points: (i.) at Hadra, close to the railway station; (ii.) about half a mile outside the Canopie Gate, close to the Ramleh Road; (iii.) at Sidi Gabr.

(i.) The whole Hadra district is one vast cometery, containing many layers of graves. A beginning was made at a convenient spot close to the station, and scemingly untouched in recent times. A number of Roman cups and pots were found lying, for the most part, loose in the soil. They were all of poor, coarse workmanship, and of late date.

About twenty fect from the present surface of the soil, we came upon the top of a stone-built vault (A), chiefly in a ruined condition, though one wall was still standing. It was built of soft, white stone, thickly mortared between the joints, and stuccoed in the same manner over its inner surface. Out of this opened two graves, one of which (B) had evidently been opened at some date; the other (C) was closed by a thin stone slab, still in situ. In each we found the remains of a skeleton, but no trace of pottery or other objects.

From the middle of the passage ascended three stone steps which led to a perpendicular shaft, which we cleared out. In the sides, which were uncased by stone, and consisted of compact native sandstone, were rough steps cut on each side for purposes of descending. At a depth of eighteen feet two chambers opened from the shaft, in each of which was a lead coffin containing a skeleton. Both of these had been broken open, and their contents rifled. By the side of one coffin were lying two small earthenware aryballi of tapering shape, made of fine yellow clay. They may be approximately dated to the 1st century BC.

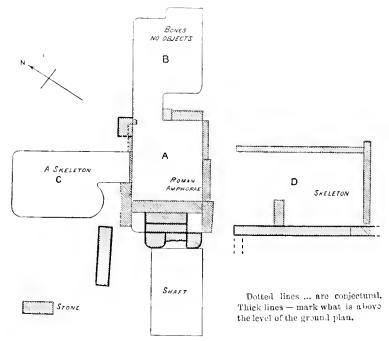
There was still another opening descending from this shaft, but before we had got more than a foot or two down, we struck water, and had to abandon it. But as none of the other chambers of this system contained any object of value, it would probably have also proved blank. A stone slab, possibly part of its door, lay at the entrance. On it was a well-executed diamond pattern in stone, but no inscription. The shaft was cleared for a few feet lower, when we reached water, at nearly forty feet below the surface of the ground, and ceased digging.

Close to the month of this shaft were found two large Roman amphoræ with tapering ends, ribbed on the inside, but smooth outside. Many other fragments turned up from time to time, of late and dispiriting appearance.

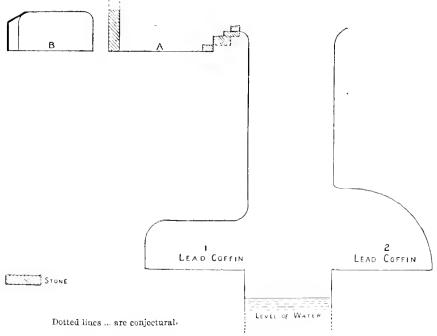
Adjoining this vaulted passage, at a slightly higher level, lay another stone-built chamber (D), containing a skeleton. This evidently did not belong to the same set of tombs, as a wall, still intact, separated it from them.

Several other tombs were opened at a higher level, some twelve feet below the adjoining soil, in one of which were found seven Roman, or Græco-Roman, jars containing ashes. One of these had been covered with white paint, and showed traces of an ornamental band in red round the neek. On the floor of this tomb, which, like the majority of the others, was cut in the sandstone, we found a gilt bronze chaplet of leaves and berries, but in an utterly rotten and decayed condition; and just outside, a small gold plaque, about one and a half inches square, on which was stamped, in repoussée, a horse and horseman carrying an emblem, resembling the Sceptre of Bes. This, doubtless, came from the tomb just mentioned; which, to judge by its appearance, had been opened, but certainly not in recent times.

The whole appearance of these tembs was discouraging. Even at a depth of forty feet below the surface, beyond which it was impossible to go owing to the water, we had come upon nothing of good date. The stone building of the vault was careless and rough, the pottery was coarse and late, and above all, the whole place seemed to have been thoroughly overhauled and robbed of any articles of value which it might once have contained.



GROUND PLAN OF HADRA TOMBS.



VERTICAL SECTION OF HADRA TOMBS AND SHAFT.

## (ii.) The Site by the Ramleh Road.

Here a passage dug in the earth, probably of late years by Arab treasure-seekers, and fragments of pottery at its month, with fine black glaze, led us to dig down, in order to strike the far end of the passage, and open the tombs which had not, at any rate, been dug from the side on which we were approaching them.

The ground was full of fragments, some apparently of good date, and others which presented a certain interest, as they seemed to mark the transition from Egyptian to Greek art. A small head, for instance, in relief on the outside of a cup, was evidently of Greek workmanship and style, but made in the green vitreous glaze of Egypt. Several fragments of wave pattern and cable pattern also pointed to the same epoch. But, unfortunately, after a few days' digging, we came upon a long row of large Roman amphoræ, which at once made it likely that these other fragments were the debris of graves which had been already rifled. Adjoining this row of amphoræ was a piece of Roman concrete pavement, and coarse brick and mortar work came to light. In one of these amphoræ, which was filled with ashes, we found a headless figurine, on which the colours were still well preserved, of a technique resembling the Tanagra work, and near it a negro's head of the Fayoum fabric.

A little lower down again we came upon fragments of bones, and one or two skulls, which again looked very unpromising; and on getting into the graves themselves, we found that they had been completely cleaned out. The Roman amphoræ lying untouched fifteen feet above them, tended to show that the rifling had been done in Roman times.

In the graves themselves there was nothing left. Bones and ornaments alike had been cleared out. Here again we struck a vanlt with four chambers in it, the roof of one of which, cut in the sandstone, was stuccoed and painted in three colours. After clearing out this system of tombs, we continued to dig downwards in the hopes of getting upon another layer, but the soil below was absolutely virgin and undisturbed, and it soon became obvious that we had dug out the lowest set of tombs. The hole made here was about thirty feet in depth, and the shaft communicating with the tombs some six or seven feet more.

The hole, however, was useful in certain ways, for it made it clear that there were graves of an interesting epoch on this site. The pottery found here was markedly better than that at Hadra, which all belonged to a base epoch. The question is how far this rifling of tombs has gone; whether the vast cometery which lies in this district has been entirely

spoiled. An untouched tomb, containing such objects as we found fragments of, would of course well repay the labour spent fruitlessly on other rifled tombs, but as far as we know at present, the rifling has been widespread and complete. About twenty-five inscribed amphora handles of Greek design, many of them bearing the device of Rhodes were also found here. The epigraphy of these belonged to the second and third centuries B.C.

## (iii.) At Sidi Gabr.

We dug here in a piece of land belonging to M. Aquilina, in which had been found the sarcophagus which is known in Alexandria as Cleopatra's, and is now in America. From a description which was given to me of it, the identification is to be attributed to a Medusa head, which was carved on one side of the sarcophagus: this was interpreted as Cleopatra's face, with an asp or asps in her hair. Here again the results were most disappointing. Two burials were found from four to six feet below the surface of the ground, neither of which yielded anything. Digging down, we came ou to a line of masonry at the depth of twenty-two feet, which proved to be a temb shaft. Three sides were complete, but there was no trace of the fourth side. The outer surface of the wall was of coarse, rough construction, badly-shaped stones being lumped in with mortar; but inside, the courses, of larger stone, were squared and neatly adjusted. Ten feet below its opening the wall ceased, the rest of the shaft being merely cut in the sandstone rock. At this point we struck water, but with the help of a pump were able to keep it under until we reached the bottom of the shaft, two feet below. A few bones were found, but nothing else.

Opposite the mouth of the shaft was found a Romau drain pipe of ribbed ware, which was followed for fifteen yards. Its direction was slightly upwards, and might perhaps lead to the remains of some villa, but as such a villa must have stood, if it existed at all, under a modern house, it was useless to pursue the drain pipe further.

That burials containing objects of value exist at Alexandria is possible, and even probable. At the same time, the excavations made there this year prove beyond a doubt that the rifling and robbing of tombs have been conducted on a very extensive scale, and the immense size of the cemeteries surrounding the town make an exhaustive search almost impossible. As will be seen from the above account, the labour of clearing is very considerable, the three holes we dug varying between thirty and forty feet in depth. The accumulation of soil on the top of

these cemeteries is immense, and no excavation is likely to be of the slightest value, unless it is carried out to the end, i.e. to the level of virgin rock, or water. Even then, as has been shown, the chance of finding objects that will repay the time and expense of working, is small in any individual hole; though that such objects exist is well within the bounds of probability.

The plans which accompany this note were made by Mr. E. R. Bevan, with whom I worked in conjunction.

E. F. Benson.

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